



TO: Nebraska Healthcare Providers, infection preventionists, laboratories, and

public health

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RE: Marked Spike in Influenza Activity this Past Week

DATE: <u>December 21, 2018</u>

Public health influenza surveillance systems are showing a marked increase in influenza activity throughout the state in the past week. We are beginning to hear of school closures and both child care and nursing home outbreaks. Nebraska health care providers should continue to aggressively <u>vaccinate</u> those who have yet to receive this year's influenza vaccine, and to prescribe antivirals and general infection control measures to those who develop symptoms. Our tracking systems show almost exclusively influenza A, and approximately equal distribution between H1N1 and H3N2. The population most affected is heavily skewed to younger ages.

Early-season flu vaccination coverage estimates were released by CDC. As of mid-November 2018, flu vaccination coverage was estimated to be 45.6% for children 6 months to 17 years old, up 6.8 percentage points compared to the same time during the 2017–18 flu season (38.8%), and 44.9% for adults 18 years and older, up 6.4 percentage points for all adults.

Influenza vaccination is an especially high priority for pregnant women and people with chronic health conditions, like diabetes (type 1, type 2, gestational diabetes).

- Flu can make chronic health problems, like diabetes, worse. The illness can make it harder to control blood sugar. It might raise sugar but sometimes people don't feel like eating when they are sick, and this can cause blood sugar levels to fall.
- Flu vaccination also has been associated with reduced hospitalizations among people with diabetes (79%), including hospitalization for diabetes without mention of complications, diabetic coma, and ketoacidosis.
- People with diabetes should ask their family and friends to get a flu vaccine as well to help reduce their chances of getting sick from flu illness.

Healthcare personnel need flu vaccine as they will be evaluating and treating patients with influenza, and will be having direct or indirect contact with high risk patients. Preventing flu among health care personnel can help reduce the spread of influenza in long-term care (LTC) facility resident populations, http://www.cdc.gov/flu/toolkit/long-term-care/index.htm.

Antiviral Drug Use

Four FDA-approved influenza antiviral drugs are recommended for use in the United States during this flu season: oseltamivir (Tamiflu®), zanamivir (Relenza®), baloxavir marboxil (Xofluza®), and peramivir (Rapivab®). Xofluza is approved for the treatment of acute uncomplicated flu in outpatients 12 years and older who have had flu symptoms for less than 2 days.

CDC does not recommend use of baloxavir in pregnant women, breastfeeding mothers, or hospitalized patients. There are no available data on use of baloxavir for treatment of influenza more than 2 days after illness onset; use of baloxavir in pregnant women, breastfeeding mothers, or hospitalized patients with influenza complications or severe disease; or use of baloxavir in children less than 12 years old. More information about antiviral drugs can be found at https://www.cdc.gov/flu/professionals/antivirals/summary-clinicians.htm

Recommendations on Laboratory Testing

Once influenza activity and sustained spread has been documented in a community or geographic area, most ambulatory patients with an uncomplicated illness consistent with influenza can be diagnosed clinically. This can be done using established definitions of influenza-like illness (ILI) and do not require influenza testing for clinical management, including antiviral treatment decisions. Influenza testing of patients who are not severely ill is a clinical decision. When interpreting the test results, clinicians should consider the following factors:

- Patient's period of illness (influenza diagnostic tests more likely to be positive when the specimen is obtained during the first three days of illness when viral shedding is highest).
- State and local influenza surveillance data regarding circulating influenza and other respiratory viruses that can cause ILI. Website updated weekly during flu season: http://www.dhhs.ne.gov/flu - Weekly Flu Report
- Sensitivity and specificity of the rapid influenza diagnostic tests (RIDT) during periods
 of high influenza activity:
 - O A negative test result does not rule out influenza virus infection. The RIDTs are less sensitive than rRT-PCR; a positive RIDT result has a high positive predictive value.
 - RIDTs do not provide information on the influenza A subtype (e.g., 2009 H1N1 vs. H3N2). Since most circulating influenza A viruses have similar antiviral susceptibilities, subtype information is not needed to inform clinical care.
 - o A positive RIDT test for influenza A virus can be assumed to be the reported circulating subtype, and does not require confirmatory typing.
 - In certain situations, public health authorities will request identification of the influenza virus type with an RT-PCR assay.
 - Any laboratory can send positive RIDT specimens to the Nebraska Public Health Laboratory (NPHL) until one positive test is confirmed out of that laboratory. Collection materials will not be provided.
 - Any hospital can send specimens from a positive RIDT for a hospitalized
 patient with ILI to NPHL for confirmatory testing. Collection materials will
 not be provided.
 - o ILINet sentinel providers and sentinel laboratories are to send specimens on patients with ILI according to DHHS guidelines.
 - o Contact DHHS or your Local Public Health Department for guidance in the event of an influenza outbreak, http://dhhs.ne.gov/lhd.

For specific clinical laboratory questions please contact NPHL client services at 1-866-290-1406 or visit the NPHL website at http://www.nphl.org/. To submit an influenza specimen to NPHL, specimens must meet specified criteria and be ordered in NULIRT for testing by NPHL at public health expense.